## AMERICAN FERN JOURNAL: VOLUME 70 NUMBER 1 (1980)

## SHORTER NOTES

A NEW COUNTY RECORD FOR PILULARIA AMERICANA IN TEXAS. — While collecting on the interesting granite outcrops of Central Texas on July 20, 1979 I came across a local, but extensive population of Pilularia americana A. Br. in a half-acre stock pond. The plants formed dense mats in mud at the margin of the pond, and in several places the mat extended onto the bare granite under the water surface. Livestock had uprooted many plants, and these were floating on the pond surface. Each rhizome measured 10-14 cm long. The plants were all in fruit, the sporocarps varying from olive-green to brown in color. Associated plants included Eleocharis sp., Bacopa rotundifolia, and Lindernia anagallidea. The pond in which the plants occurred had been enlarged from a previous vernal pool by means of an earth dam, which seems to have helped the Pilularia poplation. The population is the first known record for the species in Mason County. Other populations are known in Texas only from near Marble Falls, Burnet County, about 55 miles southeast, in similar habitats over granite. The Mason County outcrop is known locally as "Spy Rock" and is located on a private ranch 8.8 mi E on the north side of Ranch Road 1222 from the intersection with Hwy. 57, in Camp Air, near Fredonia. Specimens are being distributed to the following herbaria: B, F, GA, GH, K, MARY, MO, NCU, NY, SMU, TAES, TEX, US, VT.-Steven R. Hill, Department of Botany, University of Maryland, College Park, MD 20742. ASPLENIUM X GRAVESII DISCOVERED IN ARKANSAS.-In addition to serving as an addendum to the Pteridophytes of Arkansas by Taylor (Rhodora 81:503-548. 1979), this note is intended to document the value of the A.F.S. annual fern forays as a stimulus to discovery. One of us (Werth) went to Arkansas this past summer not only for the pure joy of a fern foray, but also with the ulterior motive of obtaining Ozarkian and Ouachitan materials for his studies on genetic variation in Asplenium. After a very successful foray, and at the suggestion of the other of us (Taylor) and David Johnson of the University of Michigan, Werth visited Hot Springs National Park in Garland County, Arkansas, on 13 August 1979. It was known that A. pinnatifidum and A. bradleyi grew sympatrically in the park on the novaculite outcroppings of the Gulpha Gorge. This population was easily located, although fewer than thirty individuals of each species were found. (Asplenium platyneuron was also present and in much greater abundance.) Nonetheless a robust individual of A.  $\times$  gravesii Maxon with leaves intermediate between the two parent species was discovered. Fronds and a portion of the rhizome were taken, and later examination of the spores showed them to be abortive. Comparison of the leaves with the drawings appearing in Wagner and Darling (Brittonia 9:57-63. 1957) confirmed that the plant was the hybrid. This hybrid is quite rare, having been reported previously from only five states, apparently as a consequence of the limited concurrence of the uncommon parent species. It is likely that plants of A. gravesii have appeared sporadically in Gulpha Gorge and died, never having been observed until the arrival one summer of an unsated fern forayer. Voucher specimens of Werth 39K8 have been deposited at MU and MIL.—Charles R. Werth, Department of Botany, Miami University, Oxford, OH 45056 and W. Carl Taylor, Department of Botany, Milwaukee Public Museum, 800 W. Wells St., Milwaukee, WI 53233.